

***BAETIS OCHRIS*, A NEW SYNONYM OF *BAETIS FLAVISTRIGA* (EPHEMEROPTERA: BAETIDAE)¹**

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ABSTRACT: A comparative study of the reared larva of *Baetis ochris* led to the discovery that its larva is symmorphic with the larva of *Baetis flavistriga*. Adult characters used to separate *Baetis ochris* from other *Baetis* species have been demonstrated to be variable and do not generally constitute substantiating species characters within the *Baetis fuscatus* species group. *Baetis ochris* is placed as a junior subjective synonym of *Baetis flavistriga*.

Among Nearctic *Baetis* Leach, several species are yet unknown as larvae (e.g., see Morihara and McCafferty 1979, Table 1). Previous works of Bergman and Hilsenhoff (1978) and Morihara and McCafferty (1979) have indicated several species synonyms in Nearctic *Baetis* based on the rearing of adults and association of their larvae.

The species, *Baetis ochris*, was originally described by Burks (1953) based on three male imagoes taken from Richmond, Illinois. R.L. Hall (1985) reported the collection of *Baetis ochris* in his study of mayflies of southeastern Ohio. A loan of Hall's material was requested and studied as a part of ongoing revisionary and taxonomic works on the Baetidae. Receipt of the requested material resulted in the discovery of one male larval exuviae associated with a reared adult bearing the following collection data: OH: Guernsey Co., 16-V-1975, 2 mi NW of Salesville nr. T 475, small stream, R.L. Hall (deposited at Ohio State University). This species has not previously been described in the larval stage.

The reared larval exuviae was slide mounted (euparal: abs. alc.) and compared in detail with *Baetis flavistriga* McDunnough, with which the larva of *B. ochris* most closely compared based on existing keys. No morphological or significant color pattern differences were found to separate the two species as larvae. Further, adult characters separating *B. ochris* from other nominal *Baetis* species are characters that have been demonstrated to be variable by previous workers in *Baetis* (Bergman and Hilsenhoff 1978; Morihara and McCafferty 1979). In particular, the relative size of the marginal intercalaries in the first three interspaces of the forewing and minor differences in degree of body pigmentation have been found to be variable in species previously synonymized with *B. flavistriga* (see Morihara and McCafferty 1979). Based on the discovery of symmorphic larval forms and consideration of the previously demonstrated adult variability, *Baetis ochris* Burks is placed as a junior subjective synonym of *Baetis flavistriga* McDunnough, NEW SYNONYM.

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The following summarizes the taxonomic history of *Baetis flavistriga*:

Baetis flavistriga McDunnough

Baetis flavistriga McDunnough, 1921: 120.

Baetis phoebus McDunnough, 1923: 41.

Baetis nanus McDunnough, 1923: 43.

Baetis pallidulus McDunnough, 1924: 8.

Baetis levitans McDunnough, 1925: 216.

Baetis cingulatus McDunnough, 1925: 216.

Baetis quebecensis Hubbard, 1974: 358.

Baetis ochris Burks, 1953: 132. NEW SYNONYM.

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LITERATURE CITED

- Bergman, E.A. and W.L. Hilsenhoff. 1978. *Baetis* (Ephemeroptera: Baetidae) of Wisconsin. Gr. Lakes Entomol. 11: 125-135.
- Burks, B.D. 1953. The Mayflies, or Ephemeroptera, of Illinois. Ill. Nat. Hist. Surv., 26 (1): 1-216.
- Hall, R.L. 1985. New collection records of Ohio Mayflies (Ephemeroptera). Entomol. News 96: 171-174.
- Morihara, D.K. and W.P. McCafferty. 1979. The *Baetis* larvae of North America (Ephemeroptera: Baetidae). Trans. Am. Entomol. Soc. 105: 139-221.